



RAW SEQUENCE LISTING
ERROR REPORT

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Application Serial Number: 09/601,965
Source: PCT09
Date Processed by STIC: 9/9/02

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FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

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Revised 01/29/2002



PCT09

Does Not Comply
Corrected Diskette Needed

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002
TIME: 10:52:55

See p. 4 + p. 18
for explanation
of errors.

Input Set : A:\Aez1049.txt
Output Set: N:\CRF3\09092002\I601965.raw

4 <110> APPLICANT: Scriptgen
5 Thompson, M. Craig
6 Long, Fan
7 Wobbe, C. Richard
9 <120> TITLE OF INVENTION: A NOVEL FUNGAL MULTISUBUNIT PROTEIN
10 COMPLEX CRITICAL FOR EXPRESSION OF FUNGAL PROTEINS
13 <130> FILE REFERENCE: 0342/1D516US2
C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/601,965
C--> 16 <141> CURRENT FILING DATE: 2002-08-09
18 <150> PRIOR APPLICATION NUMBER: PCT/US99/02940
19 <151> PRIOR FILING DATE: 1999-02-08
21 <150> PRIOR APPLICATION NUMBER: 60/074,100
22 <151> PRIOR FILING DATE: 1998-02-09
24 <160> NUMBER OF SEQ ID NOS: 32
26 <170> SOFTWARE: FastSEQ for Windows Version 3.0

Error on pp 4, 7, 10-12,
15-17.

ERRORED SEQUENCES

104 <210> SEQ ID NO: 2
105 <211> LENGTH: 1160
106 <212> TYPE: PRT
107 <213> ORGANISM: C. albicans
109 <400> SEQUENCE: 2
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111 1 5 10 15
112 Asn Asn Asn Asn His Asp Lys Asp Asp Asp Asp Glu Phe Asn
113 20 25 30
114 Arg Leu Leu Gln Glu Gly Gln Pro Glu Leu Thr Asn Asp Glu Glu Met
115 35 40 45
116 Ala Ala Gln Ala Ala Ala Glu Ser Gln Phe Asp Ala Leu Phe Gly Asn
117 50 55 60
118 Ser Asn Asp Phe Asp Ser Asn Ile Ser His His Asp His Met Gly Gly
119 65 70 75 80
120 Asp Ser Asn Gly Ile Ile Asp Asp Asn His His Ser Ser Val Asn Asp
121 85 90 95
122 His Asp Gly Leu Phe Asn Asn Leu Gly Asn Gly Asn His Leu Leu Asp
123 100 105 110
124 Asp Asp Asn Asp Gly Leu Asn Asp Leu Gly Glu Leu Phe Asp Asp Gln
125 115 120 125
126 Gln Glu Asp Ser Asn Val Ile Asn Thr Lys Lys His Lys Leu Asp Asp
127 130 135 140
128 Asp Ser Asn Asn Asp Gly Lys Thr Ala Gln Glu Asp Gln Lys Glu Lys

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Input Set : A:\Aez1049.txt

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129	145				150					155				160		
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131					165					170					175	
132	His	Leu	Glu	Lys	Gln	Gln	Ile	Lys	Arg	Asn	Ile	Lys	Tyr	Tyr	Phe	Pro
133				180					185					190		
134	Thr	Tyr	Ser	Arg	His	Arg	Pro	Phe	Asn	Phe	His	Lys	Phe	Phe	Ser	Pro
135			195					200					205			
136	Ser	Pro	Gln	Tyr	Tyr	Arg	Tyr	Gln	Arg	Pro	Ala	Ile	Ala	Leu	Ser	Lys
137		210					215					220				
138	Asn	Ile	Lys	Pro	Leu	Ile	Pro	Thr	Lys	Val	Asn	Leu	Glu	Ile	Glu	Val
139	225					230					235				240	
140	Asp	Gln	Lys	Lys	Ile	Phe	Lys	Leu	Arg	Ser	Ala	Asp	Thr	Ala	Ser	Leu
141					245					250					255	
142	Ser	His	Glu	Asp	Lys	Asn	Val	Thr	Asn	Ile	Thr	Gln	Asp	Asp	Leu	Asp
143				260					265					270		
144	Phe	Ile	Lys	Asn	Leu	Glu	Ser	Lys	Arg	Ser	Ser	Ile	Asp	Ser	Phe	Ile
145		275						280					285			
146	Lys	Glu	Ile	Asp	Tyr	Val	Lys	Arg	Asp	Trp	Thr	Asn	Cys	Asp	Lys	Phe
147		290					295					300				
148	Asp	His	Tyr	Ser	Lys	Asp	Leu	Val	Leu	Ser	Thr	Thr	Asp	Trp	Asp	Asp
149	305					310					315				320	
150	Asp	Ala	Ile	Ile	Asn	Ala	Gly	Asp	Asn	Glu	Tyr	Ser	Ile	Val	Lys	Pro
151					325					330					335	
152	Ile	Asn	Glu	Leu	Leu	Leu	Asn	Asn	Pro	Leu	Asp	Asn	Ser	Lys	Gln	Asn
153				340					345					350		
154	Arg	Gln	Lys	Ile	Glu	Asn	Asp	Asn	Thr	Thr	Asn	Asn	Tyr	Asn	Gln	Asn
155			355					360					365			
156	Asn	Ser	Asn	Val	Gln	Asp	Glu	Glu	Glu	Asp	Asp	Asp	Ile	Phe	Asn	Gly
157		370					375				380					
158	Gln	Ile	Asn	Leu	Asp	Lys	Leu	Lys	Leu	Asp	Met	Asn	Asp	Pro	Asn	Leu
159	385					390					395				400	
160	Leu	Phe	Val	Pro	Ser	Lys	Lys	Val	Asp	Ala	Thr	Lys	Ser	Val	Val	Pro
161					405					410					415	
162	Ser	Thr	Asp	Lys	Leu	Leu	Glu	Leu	Lys	Phe	Asn	Ile	Ser	Asn	Asp	Gln
163				420					425					430		
164	Glu	Tyr	Glu	Leu	Leu	Arg	Lys	Asn	Tyr	Asn	Thr	Lys	Gln	Arg	Ser	Gln
165			435					440					445			
166	Leu	Ser	Asn	Leu	Asn	Ile	Glu	His	Ser	Val	Pro	Ala	Leu	Arg	Leu	Gln
167		450					455					460				
168	Thr	Pro	Tyr	Tyr	Lys	Val	Lys	Leu	Ser	Thr	Asp	Glu	Thr	Arg	Ser	Phe
169	465					470					475				480	
170	His	Arg	Pro	Val	Phe	Asn	Val	Arg	Pro	Gly	Thr	Leu	Val	Ser	Phe	Ser
171					485					490					495	
172	Lys	Leu	Lys	Leu	Arg	Lys	Arg	Lys	Lys	Asp	Lys	Gly	Lys	Ser	Leu	Gln
173				500					505					510		
174	Gln	Ile	Phe	Ser	Lys	Thr	Ser	Asp	Leu	Thr	Val	Ala	Asp	Thr	Gly	Asn
175			515					520					525			
176	Ile	Ile	Ala	Leu	Glu	Tyr	Ser	Glu	Gln	Tyr	Pro	Pro	Ile	Leu	Ser	Asn
177		530						535				540				

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Input Set : A:\Aez1049.txt

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178 Phe Gly Met Gly Ser Lys Leu Ile Asn Tyr Tyr Arg Lys Glu Arg Pro
179 545 550 555 560
180 Asn Asp Thr Ser Arg Pro Lys Ala Gln Ile Gly Glu Thr His Ile Leu
181 565 570 575
182 Gly Val Glu Asp Arg Ser Pro Phe Trp Asn Phe Gly Glu Val Ala Pro
183 580 585 590
184 Gly Asp Phe Val Pro Thr Leu Tyr Asn Asn Met Val Arg Ala Pro Ile
185 595 600 605
186 Phe Lys His Asp Asn Lys Pro Thr Asp Phe Leu Leu Val Lys Ser Gln
187 610 615 620
188 Gly Ala Gly Ser His Gln Lys Phe Tyr Leu Arg Gly Ile Asn Phe Asn
189 625 630 635 640
190 Phe Ala Val Gly Asn Thr Phe Pro Val Glu Val Pro Ala Pro His Ser
191 645 650 655
192 Arg Lys Val Thr Asn Ile Ser Lys Asn Arg Leu Lys Met Val Val Phe
193 660 665 670
194 Arg Val Met Asn Ser Leu Gly Val Pro Arg Ile Ser Val Lys Asp Val
195 675 680 685
196 Ser Lys His Phe Pro Glu His Ser Asp Met Gln Asn Arg Gln Arg Leu
197 690 695 700
198 Lys Glu Phe Met Glu Tyr Gln Arg Gln Gly Glu Asp Gln Gly Tyr Trp
199 705 710 715 720
200 Lys Val Arg Gly Leu Asn Asp Val Ile Pro Gly Glu Glu Glu Ile Arg
201 725 730 735
202 Thr Met Ile Thr Pro Glu Asp Ser Ser Leu Met Asp Thr Met Gln Phe
203 740 745 750
204 Gly Gln Gln Val Leu Asp Asp Asn Met Val Leu Phe Gly Glu Gln Ser
205 755 760 765
206 Arg Gln Glu Ser Ser Arg Ser Arg Lys Gly Asp Lys Arg Glu Asp Ser
207 770 775 780
208 Ile Ala Asp Asp Ala Glu Asn Gly Asp Asp Ile Asn Lys Asp Lys Glu
209 785 790 795 800
210 Lys Glu Val Glu Lys Glu Lys Glu Gln Glu Arg Glu Glu Glu Lys Gly
211 805 810 815
212 Lys Asp Lys Glu Lys Asp Lys Asp Lys Glu Lys Asp Lys Thr Glu Lys
213 820 825 830
214 Glu Lys Ser Lys Lys Ser Lys Glu Gln Asp Thr Glu Ile Asp Val Glu
215 835 840 845
216 Glu Glu Leu Ala Pro Trp Asn Leu Ser Arg Asn Phe Val Ile Ala Asn
217 850 855 860
218 Gln Thr Lys Thr Met Leu Gln Leu Asn Gly Glu Gly Asp Pro Thr Gly
219 865 870 875 880
220 Ile Gly Leu Gly Phe Ser Met Leu Arg Ala Thr Gln Lys Asn Pro Phe
221 885 890 895
222 Lys Pro Leu Phe Thr Pro Pro Pro Glu Asn Val Pro Lys Ser Asn Ala
223 900 905 910
224 Ala Ala His Asn Gln Lys Leu Tyr Glu Gln Glu Ile Lys Arg Ile Trp
225 915 920 925
226 Tyr Ser Gln Arg Ser Ser Leu Val Asp His Gly Glu Gly Thr Glu Ser

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227      930      935      940
228 Lys Leu Gln Gln Ile Tyr Asn Glu Tyr Pro Pro Ala Asp His Glu Leu
229 945      950      955      960
230 Tyr Leu Lys Asn Lys Leu Glu Gln Asp Gln Gln Val Gln Gln Gln Gln
231      965      970      975
232 Gln Asp Pro Ser Leu Gln Ala Asp Gln Gln Gln Gln Gln Gln Gln Gln
233      980      985      990
234 Gln Asn Arg Val Leu Arg Ile Thr Arg Arg Val Arg Asp Glu Asn Gly
235      995      1000      1005
236 Ile Val His Arg Lys Val Glu Phe Ile His Asp Pro Arg Leu Ile Arg
237      1010      1015      1020
238 Ala Tyr Val Lys Arg Lys Lys Gln Ile Glu Asp Glu Leu Leu Lys Asn
E--> 239 1025      1030      1035      1040
240 Ala Asp Val Asp Glu Ile Leu Pro Thr Asn Asp Lys Glu Leu Asn Lys
241      1045      1050      1055
242 Ile Arg Arg Lys Ala Leu Glu Glu Lys Leu Ala Asn Leu Glu Lys Arg
243      1060      1065      1070
244 Ala Lys Gln Ser Arg Ala Lys Lys Pro Pro Lys Asp Leu Ile His Ala
245      1075      1080      1085
246 Ala Ala Ala Ala Gly Ala Thr Ile Ile Asp Ala Asn Thr Val Met Leu
247      1090      1095      1100
248 Pro Asp Gly Ser Tyr Val Ile Gly Gly Lys Gly Ile Gly Lys Gly Lys
E--> 249 1105      1110      1115      1120
250 Ser Arg Thr Arg Arg Cys Lys Asn Cys Gly Ala Tyr Gly His Ile Arg
251      1125      1130      1135
252 Thr Asn Ala Lys Cys Pro Leu Tyr Lys Lys Met Val Leu Gly Ile Asp
253      1140      1145      1150
254 Asp Asp Ser Ala Ala Val Val Gly
255      1155      1160
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258 <211> LENGTH: 1066
259 <212> TYPE: PRT
260 <213> ORGANISM: S. cerevisiae
262 <400> SEQUENCE: 3
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266      20      25      30
267 Gly Ser Tyr Ile Gly Gly Asp Glu Gly Ala Asn Ser Lys Asp Tyr Thr
268      35      40      45
269 Glu His Leu Pro Asp Ala Val Asp Phe Glu Asp Glu Asp Glu Leu Ala
270      50      55      60
271 Asp Asp Asp Asp Asp Leu Pro Glu Glu Ser Asp Ala Asn Leu His Pro
272      65      70      75      80
273 Ala Met Met Thr Met Gly Ala Tyr Asp Asp Val Asn Glu Asn Gly Ala
274      85      90      95
275 Val Leu Gly Ile Asp Ser Asn Ser Leu Asn Met Gln Leu Pro Glu Ile
276      100      105      110
277 Asn Gly Asp Leu Ser Gln Gln Phe Ile Leu Glu Asp Asp Gly Gly Thr

```

of amino
numbering
last digit must
be lined up immediately
under the last letter
of the amino acid
designator

DATE: 09/09/2002

TIME: 10:52:55

Output Set: N:\CRF3\09092002\I601965.raw

file://C:\CRF3\Outhold\Vsrl601965.htm

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DATE: 09/09/2002

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327 Leu Lys Ala Arg Lys Arg Lys Arg Asp Lys Gly Lys Asp Val Lys Glu
328      515      520      525
329 Ser Phe Ser Thr Ser Gln Asp Leu Thr Ile Gly Asp Thr Ala Pro Val
330      530      535      540
331 Tyr Leu Met Glu Tyr Ser Glu Gln Thr Pro Val Ala Leu Ser Lys Phe
332      545      550      555      560
333 Gly Met Ala Asn Lys Leu Ile Asn Tyr Tyr Arg Lys Ala Asn Glu Gln
334      565      570      575
335 Asp Thr Leu Arg Pro Lys Leu Pro Val Gly Glu Thr His Val Leu Gly
336      580      585      590
337 Val Gln Asp Lys Ser Pro Phe Trp Asn Phe Gly Phe Val Glu Pro Gly
338      595      600      605
339 His Ile Val Pro Thr Leu Tyr Asn Asn Met Ile Arg Ala Pro Val Phe
340      610      615      620
341 Lys His Asp Ile Ser Gly Thr Asp Phe Leu Leu Thr Lys Ser Ser Gly
342      625      630      635      640
343 Phe Gly Ile Ser Asn Arg Phe Tyr Leu Arg Asn Ile Asn His Leu Phe
344      645      650      655
345 Thr Val Gly Gln Thr Phe Pro Val Glu Glu Ile Pro Gly Pro Asn Ser
346      660      665      670
347 Arg Lys Val Thr Ser Met Lys Ala Thr Arg Leu Lys Met Ile Ile Tyr
348      675      680      685
349 Arg Ile Leu Asn His Asn His Ser Lys Ala Ile Ser Ile Asp Pro Ile
350      690      695      700
351 Ala Lys His Phe Pro Asp Gln Asp Tyr Gly Gln Asn Arg Gln Lys Val
352      705      710      715      720
353 Lys Glu Phe Met Lys Tyr Gln Arg Asp Gly Pro Glu Lys Gly Leu Trp
354      725      730      735
355 Arg Leu Lys Asp Asp Glu Lys Leu Leu Asp Asn Glu Ala Val Lys Ser
356      740      745      750
357 Leu Ile Thr Pro Glu Gln Ile Ser Gln Val Glu Ser Met Ser Gln Gly
358      755      760      765
359 Leu Gln Phe Gln Glu Asp Asn Glu Ala Tyr Asn Phe Asp Ser Lys Leu
360      770      775      780
361 Lys Ser Leu Glu Glu Asn Leu Leu Pro Trp Asn Ile Thr Lys Asn Phe
362      785      790      795      800
363 Ile Asn Ser Thr Gln Met Arg Ala Met Ile Gln Ile His Gly Val Gly
364      805      810      815
365 Asp Pro Thr Gly Cys Gly Glu Gly Phe Ser Phe Leu Lys Thr Ser Met
366      820      825      830
367 Lys Gly Gly Phe Val Lys Ser Gly Ser Pro Ser Ser Asn Asn Asn Ser
368      835      840      845
369 Ser Asn Lys Lys Gly Thr Asn Thr His Ser Tyr Asn Val Ala Gln Gln
370      850      855      860
371 Gln Lys Ala Tyr Asp Glu Glu Ile Ala Lys Thr Trp Tyr Thr His Thr
372      865      870      875      880
373 Lys Ser Leu Ser Ile Ser Asn Pro Phe Glu Glu Met Thr Asn Pro Asp
374      885      890      895
375 Glu Ile Asn Gln Thr Asn Lys His Val Lys Thr Asp Arg Asp Asp Lys

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376          900          905          910
377 Lys Ile Leu Lys Ile Val Arg Lys Lys Arg Asp Glu Asn Gly Ile Ile
378          915          920          925
379 Gln Arg Gln Thr Ile Phe Ile Arg Asp Pro Arg Val Ile Gln Gly Tyr
380          930          935          940
381 Ile Lys Ile Lys Glu Gln Asp Lys Glu Asp Val Asn Lys Leu Leu Glu
382 945          950          955          960
383 Glu Asp Thr Ser Lys Ile Asn Asn Leu Glu Glu Leu Glu Lys Gln Lys
384          965          970          975
385 Lys Leu Leu Gln Leu Glu Leu Ala Asn Leu Glu Lys Ser Gln Gln Arg
386          980          985          990
387 Arg Ala Ala Arg Gln Asn Ser Lys Arg Asn Gly Gly Ala Thr Arg Thr
388          995          1000          1005
389 Glu Asn Ser Val Asp Asn Gly Ser Asp Leu Ala Gly Val Thr Asp Gly
390          1010          1015          1020
391 Lys Ala Ala Arg Asn Lys Gly Lys Asn Thr Thr Arg Arg Cys Ala Thr
E--> 392 1025          1030          1035          1040
393 Cys Gly Gln Ile Gly His Ile Arg Thr Asn Lys Ser Cys Pro Met Tyr
394          1045          1050          1055
395 Ser Ser Lys Asp Asn Pro Ala Ser Pro Lys
396          1060          1065
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530 <211> LENGTH: 2066
531 <212> TYPE: PRT
532 <213> ORGANISM: Drosophila
534 <400> SEQUENCE: 5
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536 1          5          10          15
537 Asp Leu Thr Gly Ile Leu Phe Gly Asn Ile Asp Ser Glu Gly Arg Leu
538          20          25          30
539 Leu Gln Asp Asp Asp Gly Glu Gly Arg Gly Gly Thr Gly Phe Asp Ala
540          35          40          45
541 Glu Leu Arg Glu Asn Ile Gly Ser Leu Ser Lys Leu Gly Leu Asp Ser
542          50          55          60
543 Met Leu Leu Glu Val Ile Asp Leu Lys Glu Ala Glu Pro Pro Ser Asp
544 65          70          75          80
545 Asp Glu Glu Glu Glu Asp Ala Arg Pro Ser Ala Val Ser Ala Ser Gly
546          85          90          95
547 Gly Met Ser Ala Phe Asp Ala Leu Lys Ala Gly Val Lys Arg Glu Glu
548          100          105          110
549 Arg Glu Asp Gly Ala Val Lys Ala Gln Asp Asp Ala Ile Asp Tyr Ser
550          115          120          125
551 Asp Ile Thr Glu Leu Ser Glu Asp Cys Pro Arg Thr Pro Pro Glu Glu
552          130          135          140
553 Thr Ser Thr Tyr Asp Asp Leu Glu Asp Ala Ile Pro Ala Ser Lys Val
554 145          150          155          160
555 Glu Ala Lys Leu Thr Lys Asp Asp Lys Glu Leu Met Pro Pro Pro Ser
556          165          170          175
557 Ala Pro Met Arg Ser Gly Ser Gly Gly Gly Ile Glu Glu Pro Ala Lys

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→ same error

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558          180          185          190
559 Ser Asn Asp Ala Ser Ser Pro Ser Asp Asp Ser Lys Ser Thr Asp Ser
560          195          200          205
561 Lys Asp Ala Asp Arg Lys Leu Asp Thr Pro Leu Ala Asp Ile Leu Pro
562          210          215          220
563 Ser Lys Tyr Gln Asn Val Asp Val Arg Glu Leu Phe Pro Asp Phe Arg
564          225          230          235          240
565 Pro Gln Lys Val Leu Arg Phe Ser Arg Leu Phe Gly Pro Gly Lys Pro
566          245          250          255
567 Thr Ser Leu Pro Gln Ile Trp Arg His Val Arg Lys Arg Arg Arg Lys
568          260          265          270
569 Arg Asn Gln Ser Arg Asp Gln Lys Thr Thr Asn Thr Gly Gly Ser Asp
570          275          280          285
571 Ser Pro Ser Asp Thr Glu Glu Pro Arg Lys Arg Gly Phe Ser Leu His
572          290          295          300
573 Tyr Ala Ala Glu Pro Thr Pro Ala Glu Cys Met Ser Asp Asp Glu Asp
574          305          310          315          320
575 Lys Leu Leu Gly Asp Phe Asn Ser Glu Asp Val Arg Pro Glu Gly Pro
576          325          330          335
577 Asp Asn Gly Glu Asn Ser Asp Gln Lys Pro Lys Val Ala Asp Trp Arg
578          340          345          350
579 Phe Gly Pro Ala Gln Ile Trp Tyr Asp Ile Leu Glu Val Pro Asp Ser
580          355          360          365
581 Gly Glu Gly Phe Asn Tyr Gly Phe Lys Thr Lys Ala Ala Ser Thr Ser
582          370          375          380
583 Ser Gln Gln Gln Leu Lys Asp Glu Arg Arg Val Lys Ser Pro Glu Asp
584          385          390          395          400
585 Asp Val Glu Asp Pro Ser Ile Ala Asp Asp Ala Phe Leu Met Val Ser
586          405          410          415
587 Gln Leu His Trp Glu Asp Asp Val Val Trp Asp Gly Asn Asp Ile Lys
588          420          425          430
589 Ala Lys Val Leu Gln Lys Leu Asn Ser Lys Thr Asn Ala Ala Gly Trp
590          435          440          445
591 Leu Pro Ser Ser Gly Ser Arg Thr Ala Gly Ala Phe Ser Gln Pro Gly
592          450          455          460
593 Lys Pro Ser Met Pro Val Gly Ser Gly Ser Ser Lys Gln Gly Ser Gly
594          465          470          475          480
595 Ala Ser Ser Lys Lys Ala Gln Gln Asn Ala Gln Ala Lys Pro Ala Glu
596          485          490          495
597 Ala Pro Asp Asp Thr Trp Tyr Ser Leu Phe Pro Val Glu Asn Glu Glu
598          500          505          510
599 Leu Ile Tyr Tyr Lys Trp Glu Asp Glu Val Ile Trp Asp Ala Gln Gln
600          515          520          525
601 Val Ser Lys Val Pro Lys Pro Lys Val Leu Thr Leu Asp Pro Asn Asp
602          530          535          540
603 Glu Asn Ile Ile Leu Gly Ile Pro Asp Asp Ile Asp Pro Ser Lys Ile
604          545          550          555          560
605 Asn Lys Ser Thr Gly Pro Pro Pro Lys Ile Lys Ile Pro His Pro His
606          565          570          575

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607 Val Lys Lys Ser Lys Ile Leu Leu Gly Lys Ala Gly Val Ile Asn Val
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609 Leu Ala Glu Asp Thr Pro Pro Pro Pro Lys Ser Pro Asp Arg Asp
610           595           600           605
611 Pro Phe Asn Ile Ser Asn Asp Thr Tyr Tyr Thr Pro Lys Thr Glu Pro
612           610           615           620
613 Thr Leu Arg Leu Lys Val Gly Gly Asn Leu Ile Gln His Ser Thr Pro
614           625           630           635           640
615 Val Val Glu Leu Arg Ala Pro Phe Val Pro Thr His Met Gly Pro Met
616           645           650           655
617 Asn Val Arg Ala Phe His Arg Pro Pro Leu Lys Lys Tyr Ser His Gly
618           660           665           670
619 Pro Met Ala Gln Ser Ile Pro His Pro Val Phe Pro Leu Leu Lys Thr
620           675           680           685
621 Ile Ala Lys Lys Ala Lys Gln Arg Glu Val Glu Arg Ile Ala Ser Gly
622           690           695           700
623 Gly Gly Asp Val Phe Phe Met Arg Asn Pro Glu Asp Leu Ser Gly Arg
624           705           710           715           720
625 Asp Gly Asp Ile Val Leu Ala Glu Phe Cys Glu Glu His Pro Pro Leu
626           725           730           735
627 Ile Asn Gln Val Gly Met Cys Ser Lys Ile Lys Asn Tyr Tyr Lys Arg
628           740           745           750
629 Lys Ala Glu Lys Asp Ser Gly Pro Gln Asp Tyr Val Tyr Gly Glu Val
630           755           760           765
631 Ala Phe Ala His Thr Ser Pro Phe Leu Gly Ile Leu His Pro Gly Gln
632           770           775           780
633 Cys Ile Gln Ala Ile Glu Asn Asn Met Tyr Arg Ala Pro Ile Tyr Pro
634           785           790           795           800
635 His Lys Met Ala His Asn Asp Phe Leu Val Ile Arg Thr Arg Asn Asn
636           805           810           815
637 Tyr Trp Ile Arg Ser Val Asn Ser Ile Tyr Thr Val Gly Gln Glu Cys
638           820           825           830
639 Pro Leu Tyr Glu Val Pro Gly Pro Asn Ser Lys Arg Ala Asn Asn Phe
640           835           840           845
641 Thr Arg Asp Phe Leu Gln Val Phe Ile Tyr Arg Leu Phe Trp Lys Ser
642           850           855           860
643 Arg Asp Asn Pro Arg Arg Ile Arg Met Asp Asp Ile Lys Gln Ala Phe
644           865           870           875           880
645 Pro Ala His Ser Glu Ser Ser Ile Arg Lys Arg Leu Lys Gln Cys Ala
646           885           890           895
647 Asp Phe Lys Arg Thr Gly Met Asp Ser Asn Trp Trp Val Ile Lys Pro
648           900           905           910
649 Glu Phe Arg Leu Pro Ser Glu Glu Glu Ile Arg Ala Met Val Ser Pro
650           915           920           925
651 Glu Gln Cys Cys Ala Tyr Phe Ser Met Ile Ala Ala Glu Gln Arg Leu
652           930           935           940
653 Lys Asp Ala Gly Tyr Gly Glu Lys Phe Leu Phe Ala Pro Gln Glu Asp
654           945           950           955           960
655 Asp Asp Glu Glu Ala Gln Leu Lys Leu Asp Asp Glu Val Lys Val Ala

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002

TIME: 10:52:55

Input Set : A:\Aez1049.txt

Output Set: N:\CRF3\09092002\I601965.raw

```

656          965          970          975
657 Pro Trp Asn Thr Thr Arg Ala Tyr Ile Gln Ala Met Arg Gly Lys Cys
658          980          985          990
659 Leu Leu Gln Leu Ser Gly Pro Ala Asp Pro Thr Gly Cys Gly Glu Gly
660          995          1000          1005
661 Phe Ser Tyr Val Arg Val Pro Asn Lys Pro Thr Gln Thr Lys Glu Glu
662          1010          1015          1020
663 Gln Glu Ser Gln Pro Lys Arg Ser Val Thr Gly Thr Asp Ala Asp Leu
E--> 664 1025          1030          1035          104
665 Arg Arg Leu Pro Leu Gln Arg Ala Lys Glu Leu Leu Arg Gln Phe Lys
666          1045          1050          1055
667 Val Pro Glu Glu Glu Ile Lys Lys Leu Ser Arg Trp Glu Val Ile Asp
668          1060          1065          1070
669 Val Val Arg Thr Leu Ser Thr Glu Lys Ala Lys Ala Gly Glu Glu Gly
670          1075          1080          1085
671 Met Asp Lys Phe Ser Arg Gly Asn Arg Phe Ser Ile Ala Glu His Gln
672          1090          1095          1100
673 Glu Arg Tyr Lys Glu Glu Cys Gln Arg Ile Phe Asp Leu Gln Asn Arg
E--> 674 1105          1110          1115          112
675 Val Leu Ala Ser Ser Glu Val Leu Ser Thr Asp Glu Ala Glu Ser Ser
676          1125          1130          1135
677 Ala Ser Glu Glu Ser Asp Leu Glu Glu Leu Gly Lys Asn Leu Glu Asn
678          1140          1145          1150
679 Met Leu Ser Asn Lys Lys Thr Ser Thr Gln Leu Ser Arg Glu Arg Glu
680          1155          1160          1165
681 Glu Leu Glu Arg Gln Glu Leu Leu Arg Gln Leu Asp Glu Glu His Gly
682          1170          1175          1180
683 Gly Pro Ser Gly Ser Gly Gly Ala Lys Gly Ala Lys Gly Lys Asp Asp
E--> 684 1185          1190          1195          120
685 Pro Gly Gln Gln Met Leu Ala Thr Asn Asn Gln Gly Arg Ile Leu Arg
686          1205          1210          1215
687 Ile Thr Arg Thr Phe Arg Gly Asn Asp Gly Lys Glu Tyr Thr Arg Val
688          1220          1225          1230
689 Glu Thr Val Arg Arg Gln Pro Val Ile Asp Ala Tyr Ile Lys Ile Arg
690          1235          1240          1245
691 Thr Thr Lys Asp Glu Gln Phe Ile Lys Gln Phe Ala Thr Leu Asp Glu
692          1250          1255          1260
693 Gln Gln Lys Glu Glu Met Lys Arg Glu Lys Arg Arg Ile Gln Glu Gln
E--> 694 1265          1270          1275          128
695 Leu Arg Arg Ile Lys Arg Asn Gln Glu Arg Glu Arg Leu Ala Gln Leu
696          1285          1290          1295
697 Ala Gln Asn Gln Lys Leu Gln Pro Gly Gly Met Pro Thr Ser Leu Gly
698          1300          1305          1310
699 Asp Pro Lys Ser Ser Gly Gly His Ser His Lys Glu Arg Asp Ser Gly
700          1315          1320          1325
701 Tyr Lys Glu Val Ser Pro Ser Arg Lys Lys Phe Lys Leu Lys Pro Asp
702          1330          1335          1340
703 Leu Lys Leu Lys Cys Gly Ala Cys Gly Gln Val Gly His Met Arg Thr
E--> 704 1345          1350          1355          136

```

*Some
errors*

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002

TIME: 10:52:55

Input Set : A:\Aez1049.txt

Output Set : N:\CRF3\09092002\I601965.raw

```

705 Asn Lys Ala Cys Pro Leu Tyr Ser Gly Met Gln Ser Ser Leu Ser Gln
706                               1365                               1370                               1375
707 Ser Asn Pro Ser Leu Ala Asp Asp Phe Asp Glu Gln Ser Glu Lys Glu
708                               1380                               1385                               1390
709 Met Thr Met Asp Asp Asp Asp Leu Val Asn Val Asp Gly Thr Lys Val
710                               1395                               1400                               1405
711 Thr Leu Ser Ser Lys Ile Leu Lys Arg His Gly Gly Asp Asp Gly Lys
712                               1410                               1415                               1420
713 Arg Arg Ser Gly Ser Ser Ser Gly Phe Thr Leu Lys Val Pro Arg Asp
E--> 714 1425                               1430                               1435                               144
715 Ala Met Gly Lys Lys Lys Arg Arg Val Gly Gly Asp Leu His Cys Asp
716                               1445                               1450                               1455
717 Tyr Leu Gln Arg His Asn Lys Thr Ala Asn Arg Arg Arg Thr Asp Pro
718                               1460                               1465                               1470
719 Val Val Val Leu Ser Ser Ile Leu Glu Ile Ile His Asn Glu Leu Arg
720                               1475                               1480                               1485
721 Ser Met Pro Asp Val Ser Pro Phe Leu Phe Pro Val Ser Ala Lys Lys
722                               1490                               1495                               1500
723 Val Pro Asp Tyr Tyr Arg Val Val Thr Lys Pro Met Asp Leu Gln Thr
E--> 724 1505                               1510                               1515                               152
725 Met Arg Glu Tyr Ile Arg Gln Arg Arg Tyr Thr Ser Arg Glu Met Phe
726                               1525                               1530                               1535
727 Leu Glu Asp Leu Lys Gln Ile Val Asp Asn Ser Leu Ile Tyr Asn Gly
728                               1540                               1545                               1550
729 Pro Gln Ser Ala Tyr Thr Leu Ala Ala Gln Arg Met Phe Ser Ser Cys
730                               1555                               1560                               1565
731 Phe Glu Leu Leu Ala Glu Arg Glu Asp Lys Leu Met Arg Leu Glu Lys
732                               1570                               1575                               1580
733 Ala Ile Asn Pro Leu Leu Asp Asp Asp Asp Gln Val Ala Leu Ser Phe
E--> 734 1585                               1590                               1595                               160
735 Ile Phe Asp Lys Leu His Ser Gln Ile Lys Gln Leu Pro Glu Ser Trp
736                               1605                               1610                               1615
737 Pro Phe Leu Lys Pro Val Asn Lys Lys Gln Val Lys Asp Tyr Tyr Thr
738                               1620                               1625                               1630
739 Val Ile Lys Arg Pro Met Asp Leu Glu Thr Ile Gly Lys Asn Ile Glu
740                               1635                               1640                               1645
741 Ala His Arg Tyr His Ser Arg Ala Glu Tyr Leu Ala Asp Ile Glu Leu
742                               1650                               1655                               1660
743 Ile Ala Thr Asn Cys Glu Gln Tyr Asn Gly Ser Asp Thr Arg Tyr Thr
E--> 744 1665                               1670                               1675                               168
745 Lys Phe Ser Lys Lys Ile Leu Glu Tyr Ala Gln Thr Gln Leu Ile Glu
746                               1685                               1690                               1695
747 Phe Ser Glu His Cys Gly Gln Leu Glu Asn Asn Ile Ala Lys Thr Gln
748                               1700                               1705                               1710
749 Glu Arg Ala Arg Glu Asn Ala Pro Glu Phe Asp Glu Ala Trp Gly Asn
750                               1715                               1720                               1725
751 Asp Asp Tyr Asn Phe Asp Arg Gly Ser Arg Ala Ser Ser Pro Gly Asp
752                               1730                               1735                               1740
753 Asp Tyr Ile Asp Val Glu Gly His Gly Gly His Ala Ser Ser Ser Asn

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002
TIME: 10:52:55

Input Set : A:\Aez1049.txt
Output Set: N:\CRF3\09092002\I601965.raw

```

E--> 754 1745          1750          1755          176
755 Ser Ile His Arg Ser Met Gly Ala Glu Ala Gly Ser Ser His Thr Ala
756          1765          1770          1775
757 Pro Ala Val Arg Lys Pro Ala Pro Pro Gly Pro Gly Glu Val Lys Arg
758          1780          1785          1790
759 Gly Arg Gly Arg Pro Arg Lys Gln Arg Asp Pro Val Glu Glu Asp Leu
760          1795          1800          1805
761 Gln Cys Ser Thr Asp Asp Glu Asp Asp Asp Glu Glu Glu Asp Phe Gln
762          1810          1815          1820
763 Glu Val Ser Glu Asp Glu Asn Asn Ala Ala Ser Ile Leu Asp Gln Gly
E--> 764 1825          1830          1835          184
765 Glu Arg Ile Asn Ala Pro Ala Asp Ala Met Asp Gly Met Phe Asp Pro
766          1845          1850          1855
767 Lys Asn Ile Lys Thr Glu Ile Asp Leu Glu Ala His Gln Met Ala Asp
768          1860          1865          1870
769 Glu Ser Met Asp Val Asp Pro Asn Tyr Asp Pro Ser Asp Phe Leu Ala
770          1875          1880          1885
771 Met His Lys Gln Arg Gln Ser Leu Gly Glu Pro Ser Ser Leu Gln Gly
772          1890          1895          1900
773 Ala Phe Thr Asn Phe Leu Ser His Glu Gln Asp Asp Asn Gly Pro Tyr
E--> 774 1905          1910          1915          192
775 Asn Pro Ala Glu Ala Ser Thr Ser Ala Ala Ser Gly Ala Asp Leu Gly
776          1925          1930          1935
777 Met Asp Ala Ser Met Ala Met Gln Met Ala Pro Glu Met Pro Val Asn
778          1940          1945          1950
779 Thr Met Asn Asn Gly Met Gly Ile Asp Asp Asp Leu Asp Ile Ser Glu
780          1955          1960          1965
781 Ser Asp Glu Glu Asp Asp Gly Ser Arg Val Arg Ile Lys Lys Glu Val
782          1970          1975          1980
783 Phe Asp Asp Gly Asp Tyr Ala Leu Gln His Gln Gln Met Gly Gln Ala
E--> 784 1985          1990          1995          200
785 Ala Ser Gln Ser Gln Ile Tyr Met Val Asp Ser Ser Asn Glu Pro Thr
786          2005          2010          2015
787 Thr Leu Asp Tyr Gln Gln Pro Pro Gln Leu Asp Phe Gln Gln Val Gln
788          2020          2025          2030
789 Glu Met Glu Gln Leu Gln His Gln Val Met Pro Pro Met Gln Ser Glu
790          2035          2040          2045
791 Gln Leu Gln Gln Gln Gln Thr Pro Gln Gly Asp Asn Asp Tyr Ala Trp
792          2050          2055          2060
793 Thr Phe
794 2065
796 <210> SEQ ID NO: 6
797 <211> LENGTH: 1872
798 <212> TYPE: PRT
799 <213> ORGANISM: Homo sapiens
801 <400> SEQUENCE: 6
802 Met Gly Pro Gly Cys Asp Leu Leu Leu Arg Thr Ala Ala Thr Ile Thr
803 1 5 10 15
804 Ala Ala Ala Ile Met Ser Asp Thr Asp Ser Asp Glu Asp Ser Ala Gly

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002

TIME: 10:52:56

Input Set : A:\Aez1049.txt

Output Set: N:\CRF3\09092002\I601965.raw

805		20		25		30
806	Gly Gly Pro Phe Ser Leu Ala Gly Phe Leu Phe Gly Asn Ile Asn Gly					
807		35		40		45
808	Ala Gly Gln Leu Glu Gly Glu Ser Val Leu Asp Asp Glu Cys Lys Lys					
809		50		55		60
810	His Leu Ala Gly Leu Gly Ala Leu Gly Leu Gly Ser Leu Ile Thr Glu					
811	65		70		75	80
812	Leu Thr Ala Asn Glu Glu Leu Thr Gly Thr Asp Gly Ala Leu Val Asn					
813		85		90		95
814	Asp Glu Gly Trp Val Arg Ser Thr Glu Asp Ala Val Asp Tyr Ser Asp					
815		100		105		110
816	Ile Asn Glu Val Ala Glu Asp Glu Ser Arg Arg Tyr Gln Gln Thr Met					
817		115		120		125
818	Gly Ser Leu Gln Pro Leu Cys His Ser Asp Tyr Asp Glu Asp Asp Tyr					
819		130		135		140
820	Asp Ala Asp Cys Glu Asp Ile Asp Cys Lys Leu Met Pro Pro Pro Pro					
821	145		150		155	160
822	Pro Pro Pro Gly Pro Met Lys Lys Asp Lys Asp Gln Asp Ser Ile Thr					
823		165		170		175
824	Gly Glu Lys Val Asp Phe Ser Ser Ser Ser Asp Ser Glu Ser Glu Met					
825		180		185		190
826	Gly Pro Gln Glu Ala Thr Gln Ala Glu Ser Glu Asp Gly Lys Leu Thr					
827		195		200		205
828	Leu Pro Leu Ala Gly Ile Met Gln His Asp Ala Thr Lys Leu Leu Pro					
829		210		215		220
830	Ser Val Thr Glu Leu Phe Pro Glu Phe Arg Pro Gly Lys Val Leu Arg					
831	225		230		235	240
832	Phe Leu Arg Leu Phe Gly Pro Gly Lys Asn Val Pro Ser Val Trp Arg					
833		245		250		255
834	Ser Ala Arg Arg Lys Arg Lys Lys Lys His Arg Glu Leu Ile Gln Glu					
835		260		265		270
836	Glu Gln Ile Gln Glu Val Glu Cys Ser Val Glu Ser Glu Val Ser Gln					
837		275		280		285
838	Lys Ser Leu Trp Asn Tyr Asp Tyr Ala Pro Pro Pro Pro Pro Glu Gln					
839		290		295		300
840	Cys Leu Ser Asp Asp Glu Ile Thr Met Met Ala Pro Val Glu Ser Lys					
841	305		310		315	320
842	Phe Ser Gln Ser Thr Gly Asp Ile Asp Lys Val Thr Asp Thr Lys Pro					
843		325		330		335
844	Arg Val Ala Glu Trp Arg Tyr Gly Pro Ala Arg Leu Trp Tyr Asp Met					
845		340		345		350
846	Leu Gly Val Pro Glu Asp Gly Ser Gly Phe Asp Tyr Gly Phe Lys Leu					
847		355		360		365
848	Arg Lys Thr Glu His Glu Pro Val Ile Lys Ser Arg Met Ile Glu Glu					
849		370		375		380
850	Phe Arg Lys Leu Glu Glu Asn Asn Gly Thr Asp Leu Leu Ala Asp Glu					
851	385		390		395	400
852	Asn Phe Leu Met Val Thr Gln Leu His Trp Glu Asp Asp Ile Ile Trp					
853		405		410		415

RAW SEQUENCE LISTING

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Input Set : A:\Aez1049.txt

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854	Asp	Gly	Glu	Asp	Val	Lys	His	Lys	Gly	Thr	Lys	Pro	Gln	Arg	Ala	Ser
855				420					425					430		
856	Leu	Ala	Gly	Trp	Leu	Pro	Ser	Ser	Met	Thr	Arg	Asn	Ala	Met	Ala	Tyr
857			435					440					445			
858	Asn	Val	Gln	Gln	Gly	Phe	Ala	Ala	Thr	Leu	Asp	Asp	Asp	Lys	Pro	Trp
859		450				455					460					
860	Tyr	Ser	Ile	Phe	Pro	Ile	Asp	Asn	Glu	Asp	Leu	Val	Tyr	Gly	Arg	Trp
861	465					470					475				480	
862	Glu	Asp	Asn	Ile	Ile	Trp	Asp	Ala	Gln	Ala	Met	Pro	Arg	Leu	Leu	Glu
863				485						490					495	
864	Pro	Pro	Val	Leu	Thr	Leu	Asp	Pro	Asn	Asp	Glu	Asn	Leu	Ile	Leu	Glu
865			500						505					510		
866	Ile	Pro	Asp	Glu	Lys	Glu	Glu	Ala	Thr	Ser	Asn	Ser	Pro	Ser	Lys	Glu
867			515					520					525			
868	Ser	Lys	Lys	Glu	Ser	Ser	Leu	Lys	Lys	Ser	Arg	Ile	Leu	Gly	Lys	
869		530					535					540				
870	Thr	Gly	Val	Ile	Lys	Glu	Glu	Pro	Gln	Gln	Asn	Met	Ser	Gln	Pro	Glu
871	545				550						555					560
872	Val	Lys	Asp	Pro	Trp	Asn	Leu	Ser	Asn	Asp	Glu	Tyr	Tyr	Tyr	Pro	Lys
873				565						570					575	
874	Gln	Gln	Gly	Leu	Arg	Gly	Thr	Phe	Gly	Gly	Asn	Ile	Ile	Gln	His	Ser
875			580						585					590		
876	Ile	Pro	Ala	Val	Glu	Leu	Arg	Gln	Pro	Phe	Phe	Pro	Thr	His	Met	Gly
877			595					600					605			
878	Pro	Ile	Lys	Leu	Arg	Gln	Phe	His	Arg	Pro	Pro	Leu	Lys	Lys	Tyr	Ser
879		610					615					620				
880	Phe	Gly	Ala	Leu	Ser	Gln	Pro	Gly	Pro	His	Ser	Val	Gln	Pro	Leu	Leu
881	625					630					635				640	
882	Lys	His	Ile	Lys	Lys	Ala	Lys	Met	Arg	Glu	Gln	Glu	Arg	Gln	Ala	
883				645					650					655		
884	Ser	Gly	Gly	Gly	Glu	Met	Phe	Phe	Met	Arg	Thr	Pro	Gln	Asp	Leu	Thr
885			660						665					670		
886	Gly	Lys	Asp	Gly	Asp	Leu	Ile	Leu	Ala	Glu	Tyr	Ser	Glu	Glu	Asn	Gly
887			675					680					685			
888	Pro	Leu	Met	Met	Gln	Val	Gly	Met	Ala	Thr	Lys	Ile	Lys	Asn	Tyr	Tyr
889		690					695					700				
890	Lys	Arg	Lys	Pro	Gly	Lys	Asp	Pro	Gly	Ala	Pro	Asp	Cys	Lys	Tyr	Gly
891	705					710					715				720	
892	Glu	Thr	Val	Tyr	Cys	His	Thr	Ser	Pro	Phe	Leu	Gly	Ser	Leu	His	Pro
893				725						730					735	
894	Gly	Gln	Leu	Leu	Gln	Ala	Phe	Glu	Asn	Asn	Leu	Phe	Arg	Ala	Pro	Ile
895			740						745					750		
896	Tyr	Leu	His	Lys	Met	Pro	Glu	Thr	Asp	Phe	Leu	Ile	Ile	Arg	Thr	Arg
897			755					760					765			
898	Gln	Gly	Tyr	Tyr	Ile	Arg	Glu	Leu	Val	Asp	Ile	Phe	Val	Val	Gly	Gln
899		770					775					780				
900	Gln	Cys	Pro	Leu	Phe	Glu	Val	Pro	Gly	Pro	Asn	Ser	Lys	Arg	Ala	Asn
901	785					790					795				800	
902	Thr	His	Ile	Arg	Asp	Phe	Leu	Gln	Val	Phe	Ile	Tyr	Arg	Leu	Phe	Trp

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/601,965

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TIME: 10:52:56

Input Set : A:\Aez1049.txt

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```

903          805          810          815
904 Lys Ser Lys Asp Arg Pro Arg Arg Ile Arg Met Glu Asp Ile Lys Lys
905          820          825          830
906 Ala Phe Pro Ser His Ser Glu Ser Ser Ile Arg Lys Arg Leu Lys Leu
907          835          840          845
908 Cys Ala Asp Phe Lys Arg Thr Gly Met Asp Ser Asn Trp Trp Val Leu
909          850          855          860
910 Lys Ser Asp Phe Arg Leu Pro Thr Glu Glu Glu Ile Arg Ala Met Val
911          865          870          875          880
912 Ser Pro Glu Gln Cys Cys Ala Tyr Tyr Ser Met Ile Ala Ala Glu Gln
913          885          890          895
914 Arg Leu Lys Asp Ala Gly Tyr Gly Glu Lys Ser Phe Phe Ala Pro Glu
915          900          905          910
916 Glu Glu Asn Glu Glu Asp Phe Gln Met Lys Ile Asp Asp Glu Val Arg
917          915          920          925
918 Thr Ala Pro Trp Asn Thr Thr Arg Ala Phe Ile Ala Ala Met Lys Gly
919          930          935          940
920 Lys Cys Leu Leu Glu Val Thr Gly Val Ala Asp Pro Thr Gly Cys Gly
921          945          950          955          960
922 Glu Gly Phe Ser Tyr Val Lys Ile Pro Asn Lys Pro Thr Gln Gln Lys
923          965          970          975
924 Asp Asp Lys Glu Pro Gln Pro Val Lys Lys Thr Val Thr Gly Thr Asp
925          980          985          990
926 Ala Asp Leu Arg Arg Leu Ser Leu Lys Asn Ala Lys Gln Leu Leu Arg
927          995          1000          1005
928 Lys Phe Gly Val Pro Glu Glu Glu Ile Lys Lys Leu Ser Arg Trp Glu
929          1010          1015          1020
930 Val Ile Asp Val Val Arg Thr Met Ser Thr Glu Gln Ala Arg Ser Gly
E--> 931 1025          1030          1035          104
932 Glu Gly Pro Met Ser Lys Phe Ala Arg Gly Ser Arg Phe Ser Val Ala
933          1045          1050          1055
934 Glu His Gln Glu Arg Tyr Lys Glu Glu Cys Gln Arg Ile Phe Asp Leu
935          1060          1065          1070
936 Gln Asn Lys Val Leu Ser Ser Thr Glu Val Leu Ser Thr Asp Thr Asp
937          1075          1080          1085
938 Ser Ser Ser Ala Glu Asp Ser Asp Phe Glu Glu Met Gly Lys Asn Ile
939          1090          1095          1100
940 Glu Asn Met Leu Gln Asn Lys Lys Thr Ser Ser Gln Leu Ser Arg Glu
E--> 941 1105          1110          1115          112
942 Arg Glu Glu Gln Glu Arg Lys Glu Leu Gln Arg Met Leu Leu Ala Ala
943          1125          1130          1135
944 Gly Ser Ala Ala Ser Gly Asn Asn His Arg Asp Asp Asp Thr Ala Ser
945          1140          1145          1150
946 Val Thr Ser Leu Asn Ser Ser Ala Thr Gly Arg Cys Leu Lys Ile Tyr
947          1155          1160          1165
948 Arg Thr Phe Arg Asp Glu Glu Gly Lys Glu Tyr Val Arg Cys Glu Thr
949          1170          1175          1180
950 Val Arg Lys Pro Ala Val Ile Asp Ala Tyr Val Arg Ile Arg Thr Thr
E--> 951 1185          1190          1195          120

```


RAW SEQUENCE LISTING

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```

952 Lys Asp Glu Glu Phe Ile Arg Lys Phe Ala Leu Phe Asp Glu Gln His
953                1205                1210                1215
954 Arg Glu Glu Met Arg Lys Glu Arg Arg Arg Ile Gln Glu Gln Leu Arg
955                1220                1225                1230
956 Arg Leu Lys Arg Asn Gln Glu Lys Glu Lys Leu Lys Gly Pro Pro Glu
957                1235                1240                1245
958 Lys Lys Pro Lys Lys Met Lys Glu Arg Pro Asp Leu Lys Leu Lys Cys
959                1250                1255                1260
960 Gly Ala Cys Gly Ala Ile Gly His Met Arg Thr Asn Lys Phe Cys Pro
E--> 961 1265                1270                1275                128
962 Leu Tyr Tyr Gln Thr Asn Ala Pro Pro Ser Asn Pro Val Ala Met Thr
963                1285                1290                1295
964 Glu Glu Gln Glu Glu Leu Glu Lys Thr Val Ile His Asn Asp Asn
965                1300                1305                1310
966 Glu Glu Leu Ile Lys Val Glu Gly Thr Lys Ile Val Leu Gly Lys Gln
967                1315                1320                1325
968 Leu Ile Glu Ser Ala Asp Glu Val Arg Arg Lys Ser Leu Val Leu Lys
969                1330                1335                1340
970 Phe Pro Lys Gln Gln Leu Pro Pro Lys Lys Lys Arg Arg Val Gly Thr
E--> 971 1345                1350                1355                136
972 Thr Val His Cys Asp Tyr Leu Asn Arg Pro His Lys Ser Ile His Arg
973                1365                1370                1375
974 Arg Arg Thr Asp Pro Met Val Thr Leu Ser Ser Ile Leu Glu Ser Ile
975                1380                1385                1390
976 Ile Asn Asp Met Arg Asp Leu Pro Asn Thr Tyr Pro Phe His Thr Pro
977                1395                1400                1405
978 Val Asn Ala Lys Val Val Lys Asp Tyr Tyr Lys Ile Ile Thr Arg Pro
979                1410                1415                1420
980 Met Asp Leu Gln Thr Leu Arg Glu Asn Val Arg Lys Arg Leu Tyr Pro
E--> 981 1425                1430                1435                144
982 Ser Arg Glu Glu Phe Arg Glu His Leu Glu Leu Ile Val Lys Asn Ser
983                1445                1450                1455
984 Ala Thr Tyr Asn Gly Pro Lys His Ser Leu Thr Gln Ile Ser Gln Ser
985                1460                1465                1470
986 Met Leu Asp Leu Cys Asp Glu Lys Leu Lys Glu Lys Glu Asp Lys Leu
987                1475                1480                1485
988 Ala Arg Leu Glu Lys Ala Ile Asn Pro Leu Leu Asp Asp Asp Asp Gln
989                1490                1495                1500
990 Val Ala Phe Ser Phe Ile Leu Asp Asn Ile Val Thr Gln Lys Met Met
E--> 991 1505                1510                1515                152
992 Ala Val Pro Asp Ser Trp Pro Phe His His Pro Val Asn Lys Lys Phe
993                1525                1530                1535
994 Val Pro Asp Tyr Tyr Lys Val Ile Val Asn Pro Met Asp Leu Glu Thr
995                1540                1545                1550
996 Ile Arg Lys Asn Ile Ser Lys His Lys Tyr Gln Ser Arg Glu Ser Phe
997                1555                1560                1565
998 Leu Asp Asp Val Asn Leu Ile Leu Ala Asn Ser Val Lys Tyr Asn Gly
999                1570                1575                1580
1000 Pro Glu Ser Gln Tyr Thr Lys Thr Ala Gln Glu Ile Val Asn Val Cys

```

RAW SEQUENCE LISTING

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TIME: 10:52:56

Input Set : A:\Aez1049.txt

Output Set: N:\CRF3\09092002\I601965.raw

```

E--> 1001 1585          1590          1595          160
      1002 Tyr Gln Thr Leu Thr Glu Tyr Asp Glu His Leu Thr Gln Leu Glu Lys
      1003          1605          1610          1615
      1004 Asp Ile Cys Thr Ala Lys Glu Ala Ala Leu Glu Glu Ala Glu Leu Glu
      1005          1620          1625          1630
      1006 Ser Leu Asp Pro Met Thr Pro Gly Pro Tyr Thr Pro Gln Pro Pro Asp
      1007          1635          1640          1645
      1008 Leu Tyr Asp Thr Asn Thr Ser Leu Ser Met Ser Arg Asp Ala Ser Val
      1009          1650          1655          1660
      1010 Phe Gln Asp Glu Ser Asn Met Ser Val Leu Asp Ile Pro Ser Ala Thr
E--> 1011 1665          1670          1675          168
      1012 Pro Glu Lys Gln Val Thr Gln Glu Gly Glu Asp Gly Asp Gly Asp Leu
      1013          1685          1690          1695
      1014 Ala Asp Glu Glu Glu Gly Thr Val Gln Gln Pro Gln Ala Ser Val Leu
      1015          1700          1705          1710
      1016 Tyr Glu Asp Leu Leu Met Ser Glu Gly Glu Asp Asp Glu Glu Asp Ala
      1017          1715          1720          1725
      1018 Gly Ser Asp Glu Glu Gly Asp Asn Pro Phe Ser Ala Ile Gln Leu Ser
      1019          1730          1735          1740
      1020 Glu Ser Gly Ser Asp Ser Asp Val Gly Ser Gly Gly Ile Arg Pro Lys
E--> 1021 1745          1750          1755          176
      1022 Gln Pro Arg Met Leu Gln Glu Asn Thr Arg Met Asp Met Glu Asn Glu
      1023          1765          1770          1775
      1024 Glu Ser Met Met Ser Tyr Glu Gly Asp Gly Gly Glu Ala Ser His Gly
      1025          1780          1785          1790
      1026 Leu Glu Asp Ser Asn Ile Ser Tyr Gly Ser Tyr Glu Glu Pro Asp Pro
      1027          1795          1800          1805
      1028 Lys Ser Asn Thr Gln Asp Thr Ser Phe Ser Ser Ile Gly Gly Tyr Glu
      1029          1810          1815          1820
      1030 Val Ser Glu Glu Glu Glu Asp Glu Glu Glu Glu Gln Arg Ser Gly
E--> 1031 1825          1830          1835          184
      1032 Pro Ser Val Leu Ser Gln Val His Leu Ser Glu Asp Glu Glu Asp Ser
      1033          1845          1850          1855
      1034 Glu Asp Phe His Ser Ile Ala Gly Asp Ser Asp Leu Asp Ser Asp Glu
      1035          1860          1865          1870

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002
TIME: 10:52:57

Input Set : A:\Aez1049.txt
Output Set: N:\CRF3\09092002\I601965.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:12; Line(s) 1311,1313

Seq#:13; Line(s) 1324

Seq#:14; Line(s) 1336

Seq#:15; Line(s) 1348,1350

Use of <220> Feature(NEW RULES):

Sequence(s) are missing the <220> Feature and associated headings.

Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence" or "Unknown". Please explain source of genetic material in <220> to <223> section (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp.29631-32) (Sec.1.823 of new Rules)

Seq#:29

VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002

TIME: 10:52:57

Input Set : A:\Aez1049.txt

Output Set: N:\CRF3\09092002\I601965.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:12; N Pos. 15

Seq#:15; N Pos. 12

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002

TIME: 10:52:57

Input Set : A:\Aezl049.txt

Output Set: N:\CRF3\09092002\I601965.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application Number
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:239 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
M:332 Repeated in SeqNo=2
L:392 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3
L:664 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:5
M:332 Repeated in SeqNo=5
L:931 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
M:332 Repeated in SeqNo=6
L:1309 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
L:1310 M:283 W: Missing Blank Line separator, <220> field identifier
L:1317 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:1317 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:1317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:1322 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13
L:1323 M:283 W: Missing Blank Line separator, <220> field identifier
L:1334 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14
L:1335 M:283 W: Missing Blank Line separator, <220> field identifier
L:1346 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15
L:1347 M:283 W: Missing Blank Line separator, <220> field identifier
L:1354 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:15
L:1354 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:15
L:1354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:1359 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16
L:1360 M:283 W: Missing Blank Line separator, <220> field identifier
L:1369 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17
L:1370 M:283 W: Missing Blank Line separator, <220> field identifier
L:1379 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:18
L:1380 M:283 W: Missing Blank Line separator, <220> field identifier
L:1382 M:283 W: Missing Blank Line separator, <400> field identifier
L:1388 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:19
L:1389 M:283 W: Missing Blank Line separator, <220> field identifier
L:1391 M:283 W: Missing Blank Line separator, <400> field identifier
L:1397 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:20
L:1398 M:283 W: Missing Blank Line separator, <220> field identifier
L:1407 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:21
L:1408 M:283 W: Missing Blank Line separator, <220> field identifier
L:1410 M:283 W: Missing Blank Line separator, <400> field identifier
L:1548 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:22
L:1558 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:22
L:1568 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:22
L:1626 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:29
L:1627 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:1628 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:1628 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:1628 M:283 W: Missing Blank Line separator, <400> field identifier
L:1634 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:30
L:1635 M:283 W: Missing Blank Line separator, <220> field identifier

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/601,965

DATE: 09/09/2002

TIME: 10:52:57

Input Set : A:\Aez1049.txt

Output Set: N:\CRF3\09092002\I601965.raw

L:1644 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:31
L:1645 M:283 W: Missing Blank Line separator, <220> field identifier
L:1654 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:32
L:1655 M:283 W: Missing Blank Line separator, <220> field identifier
L:1661 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1